REMARKS

Applicants appreciate the thorough examination of the present application as evidenced by the Final Action of July 2, 2008 (hereinafter "Final Action"). In response, Applicants have amended independent Claims 1, 20, and 39 to include recitations similar to those of previously presented dependent Claims 14, 33, and 43, respectively. As such, dependent Claims 14, 33, and 43 have been canceled. Also, new Claim 44 has been added, which includes recitations similar to dependent Claim 18. Support for these amendments can be found in the present specification for example, at Page 1, lines 23-26, Page 2, lines 9-11, and Page 7, lines 3-15. No new matter has been added.

Accordingly, Applicants respectfully submit that the pending claims are patentable for at least the reasons discussed below.

Independent Claims 1, 20, and 39 Are Patentable Over Roth and Witkowski

Claims 1-7, 9-20, 23-35, and 37, 39-73 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2004/0049388 to Roth et al. (hereinafter "Roth") in view of U.S. Patent Publication No. 2004/0049388 to Roth et al. Amended Claim 1, for example, recites:

> 1.   An apparatus, comprising:
> a display configured to display various readable data; and
> a control unit configured to extract a part of the displayed data and configured to send the extracted part of the displayed data to a speech generating device that is configured to generate a speech signal from the extracted part of the displayed data,
>   **wherein the speech generating device is external to and physically attachable to the apparatus,** and
>   wherein the control unit is configured to send the extracted part of the displayed data to the speech generating device **such that a rate of output of the speech signal is varied in response to a rate at which a user scrolls the displayed data**. (*Emphasis added*).

The Final Action asserts that Roth discloses all of the recitations of previously presented Claim 1 with the exception of an external speech generating device, and relies on Witkowski as disclosing these recitations. *See* Final Action, Page 6.

As an initial matter, Applicants note that while the cited portions of Witkowski (e.g., Paragraphs 0045, 0059, and 0062) may describe an external text-to-speech ("TTS") module

in a motor vehicle 14, Witkowski discloses <u>a wireless communication link</u> between the RF

transceiver 10a of the electronic device 12 and the RF transceiver 10b of the motor vehicle 14

(within which the external TTS module is incorporated). *See* Witkowski, Paragraphs 0045,

0059, 0062, and Fig. 1. Thus, nowhere do the cited portions of Witkowski disclose or

suggest that the external TTS module is "<u>physically attachable</u>" to the first electronic device

12, as recited by pending Claim 1.

Applicants further submit that the cited portions of Roth fail to disclose or suggest the

remaining recitations of pending Claim 1. Roth describes a speech recognition system for

mobile phones and handheld computers that includes text-to-speech (TTS) conversion for

use, for example, when a user is driving a car or otherwise occupied. *See* Roth, Paragraph

0363. In particular, a cited portion of Roth provides:

> [0371] **If the user scrolls an item in the correction window, functions 9448 and 9450 use TTS to say the currently highlighted choice** and its selection number **in response to each such scroll**. If the user scrolls a page in a correction window, functions 9452 and 9454 use TTS to say that newly displayed choices as well as indicating the currently highlighted choice.

> [0372] When in correction mode, if the user enters a menu, functions 9456 and 9458 use TTS or free recorded audio to say the name of the current menu and all of the choices in the menu and their associated numbers, indicating the current selection position. Preferably this is done with audio cues that indicate to a user that the words being said are menu options.

> [0373] **If the user scrolls up or down an item in a menu, functions 9460 and 9462 use TTS** or pre-recorded audio **to say the highlighted choice and then**, **after a brief pause**, **any following selections** on the currently displayed page of the menu.

Roth, Paragraphs 0371-0373 (*emphasis added*). Accordingly, the above portion of Roth

describes controlling text-to-speech conversion in response to scrolling in a menu and/or a

correction window.

Applicants appreciate the arguments presented in the "Response to Arguments"

section of the Final Action, which state that because "the user can control a certain

amount/quantity of what should be said...[t]he user can control the rate." Final Action, Page

2. If Applicants' interpretation of these arguments is correct, the Final Action appears to

argue that, because the user controls the selection of text/menu items, the user may control the rate of "saying" the selected menu items based on the rate at which the user selects the text/menu items.

However, Applicants respectfully submit that the arguments presented in the Final Action describe controlling how often a selected menu item is said, rather than varying the rate of output of a speech signal (i.e., how fast the selected item is said) in response to the rate of the scrolling used in selection of the item. For example, based on the above portion of Roth, if a user scrolls in a menu to highlight multiple menu items, the user may control the frequency at which the different menu items are "read aloud" or "said" by pausing between the selection of each menu item. However, Roth does not disclose or suggest a mechanism that varies a rate at which a particular menu item is "read aloud" or "said" in response to the rate of scrolling. For instance, where the user quickly scrolls through a displayed paragraph including several sentences, Roth does not disclose or suggest that the speed at which the words of the paragraph are "said" is increased in response to the speed of scrolling through the lines or words of the paragraph. Thus, controlling the frequency of output of separate speech signals in response to the frequency of separate user inputs/selections does not disclose or suggest varying the rate or speed of output of a speech signal in response to the rate of scrolling used in selection of the words/characters to be represented by the speech signal.

Indeed, Applicants submit that Roth teaches away from varying the rate the rate of output of the speech signal in response to the rate of scrolling the displayed data because Roth describes the use of "a brief pause" in between saying a highlighted choice and saying the following selections; thus, even if a user quickly scrolls from one item to the next, the TTS of Roth provides a brief pause between saying each highlighted choice. *See* Roth, Paragraph 0373. Also, while cited Paragraph 0355 of Roth may describe "finer control over audio navigation speed" in response to selecting an audio menu item with the "1" key, it does not disclose or suggest varying the audio navigation speed in response to a rate of scrolling in the display. *See* Roth, Paragraph 0355.

Accordingly, as the cited portions of Roth and Witkowski fail to disclose or suggest at least the above-highlighted recitations of pending Claim 1, Applicants submit that Claim 1 is

patentable over Roth for at least these reasons. Amended Claims 20 and 39 include similar recitations of devices including a control unit configured "such that a rate of output of the speech signal including the plurality of words is controlled in response to a rate of user interaction with the display comprising scrolling in the display," and as such, are patentable for at least similar reasons. Also, dependent Claims 2 – 7, 9 – 19, 23 – 37, and 41 – 43 are patentable at least per the patentability of Claims 1, 20, and 39 from which they depend.

New Claim 44 Is Patentable

New independent Claim 44 is also patentable over the cited references. Claim 44 recites:

> 44.   A functional cover for a mobile terminal housing, the functional cover comprising:
> a shell configured to be conformably attached to a surface of the mobile terminal housing;
> a microcontroller within the shell configured to be connected to the mobile terminal and configured to receive data therefrom; and
> a conversion circuit coupled to the microcontroller within the shell and configured to convert the received data into a speech signal and provide the speech signal to a speaker for output.

Applicants respectfully submits that neither of the cited references disclose or suggest the recitations of Claim 44. For example, the Final Action concedes that Roth does not disclose or suggest an external or attachable speech generation device, and thus, does not disclose or suggest a functional cover including "a shell configured to be conformably attached to a surface of the mobile terminal housing," as recited by Claim 44. *See* Final Action, Page 6. Nor does Witkowski disclose or suggest a functional cover that is conformably attachable to a mobile terminal; rather, as discussed above, Witkowski discloses a wireless, rather than a physical, interface between the electronic device 12 and the external TTS included in the motor vehicle 14 described therein. *See* Witkowski, Paragraph 0045 and Fig. 1. Thus, Applicants respectfully submit that new Claim 44 is patentable over the cited references for at least these reasons.

Many of the Dependent Claims Are Separately Patentable

As discussed above, Applicants note that the dependent claims are patentable at least

per the patentability of independent Claims 1, 20, and 39 from which they depend. Moreover, Applicants submit that various dependent claims are separately patentable.

For example, pending Claim 6 recites, in part, that the control unit is configured to send the extracted portion of the displayed data to the speech generating device "responsive to input of spaces and/or punctuation marks via the keypad." In rejecting Claim 6, the Final Action asserts that Paragraphs 0025, 0154, 0184, 0270, and 348 of Roth disclose these recitations. *See* Final Action, Page 7. However, nowhere do the cited portions of Roth disclose or suggest sending data to the TTS <u>in response to recognizing entry of spaces and/or punctuation marks</u>. Rather, Paragraph 0025 describes "a punctuation recognizing mode" for <u>speech recognition</u> (i.e., speech-to-text); Paragraph 00154 describes a <u>speech recognition</u> Software Input Program (SIP) that responds to a user selection of a Space button; Paragraph 0184 describes identification of entry of a space, but not sending data to a TTS in response thereto; Paragraph 0270 describes "utterance recognition causing the utterance of the word 'period'...to give rise to the correction pointed to by 3304 in which the punctuation mark '.' is shown"; and Paragraph 0348 describes displaying a list of available punctuation marks. *See* Roth, Paragraphs 0025, 0154, 0184, 0270, and 0348. Accordingly, Applicants submit that Claim 6 is separately patentable for at least these reasons. Claims 25 and 42 include similar recitations, and are thus also separately patentable for at least similar reasons.

In addition, Claim 18 recites, in part, that "the speech generating device includes a functional cover comprising a shell configured to cover a front of the apparatus and a microprocessor configured to cooperate with the control unit of the apparatus". However, as discussed above with reference to Claim 44, neither Roth nor Witkowski disclose or suggest a shell including a microprocessor and a speech generating device that is configured to be attached to a surface of an apparatus. Thus, Applicants submit that amended Claim 18 is separately patentable for at least these reasons.
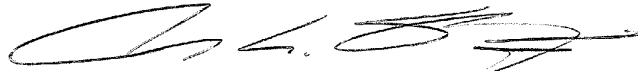
Conclusion

Accordingly, in light of the above amendments and remarks, Applicants respectfully submit that all of the pending claims are now in condition for allowance. Thus, Applicants respectfully request allowance of the pending claims and passing the application to issue.

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Applicants encourage the Examiner to contact the undersigned by telephone to resolve any

remaining issues.
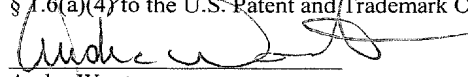
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